Attorney Docket Number: FSP0054   Client Reference Number: AWS 761.US
Title: INTELLIGENT PRESENTATION NETWORK MANAGEMENT SYSTEM
Application Number: 09/511,168

communication network includes monitoring the a condition of the network elements, in which the representation of network elements in the geographical area includes representing the condition of the network elements, and in which the summarization of summarizing the representation of network elements at the higher second level in the geographical hierarchy includes triggering an alarm at the second hierarchical level in response to the a condition of a particular network element represented at the first level.

4. (Currently Amended) The method of claim 3 wherein the communication network is managed in real-time, and further comprising, following the representation representing of each network element in the geographical areas:
updating the condition of one or more network elements represented in the first level of the geographical hierarchy; and
in which the summarization of wherein summarizing the representation of network elements at the higher level in the geographical hierarchy includes setting triggering the alarm at the second hierarchical level in response to changes in the condition of network elements.

5. (Currently Amended) The method of claim 4 1 in which the representation of each network element in the geographical areas representing each network element in a geographical area at a first level in the geographical hierarchy includes representing the at least one network element as a first icon on a map of geographical areas on the first level of the geographical hierarchy.

6. (Currently Amended) The method of claim 5 1 in which the representation of each network element in the geographical areas representing each network element in a geographical area at a first level in the geographical hierarchy includes representing the a condition of the at least one network element with the a first icon that varies with respect to the status of the network element.

7. (Currently Amended) The method of claim 6 1 in which the summarization of summarizing the representation of network elements at the higher second level in the geographical hierarchy includes representing the a status of a plurality of the network elements as a second an icon on a map of geographical areas on the second level of the geographical hierarchical hierarchy.

8. (Currently Amended) The method of claim 7 further comprising, preceding the summarization of summarizing the representation of network elements at the higher level in the geographical hierarchy:
establishing a set of rules defining the meaning of the second icon.

9. (Currently Amended) The method of claim 8 7 in which the summarization of summarizing the

Page 2/7

Attorney Docket Number: FSP0054   Client Reference Number: AWS 761.US
Title: INTELLIGENT PRESENTATION NETWORK MANAGEMENT SYSTEM
Application Number: 09/511,168

representation of network elements at the ~~higher~~ second level in the geographical hierarchy includes
coloration of the ~~second~~ icon ~~being the coloration of geographical area~~.

10. (Currently Amended) The method of claim 8 1 in which the ~~summarization of~~ summarizing the
representation of network elements at the ~~higher~~ level in the geographical hierarchy includes summarizing
~~the~~ a status of a plurality of the network elements with textual annotation.

11. (Currently Amended) The method of claim 7 1 wherein management of the
network includes the installation of network elements into the communications network, and in which the
~~representation of each network element in the geographical area~~ representing each network element in a
geographical area at a first level in the geographical hierarchy includes entering ~~the~~ a latitude and a
longitude of the network element upon installation into the network.

12. (Original) The method of claim 8 wherein network management is
supervised, and further comprising:
creating supervisor identities; and
in which the establishment of rule-sets includes establishing a set of rules for each supervisor identity.

13. (Currently Amended) The method of claim 8 in which the establishment of rule-sets includes defining a
set of rules responsive to conditions selected from ~~the~~ a group consisting of power source status, software
corruption, hardware failure, environmental factors, and intrusion into the network elements.

14. (Currently Amended) The method of claim 1 wherein the communications
network is a fixed wireless service (FWS) including base stations and remote units, and in which ~~the~~
~~representation of each network element in the geographical area~~ representing each network element in a
geographical area at a first level in the geographical hierarchy includes representing ~~the~~ geographical
positions of network base stations and remote units.

15. (Currently Amended) A method ~~for~~ of determining the failure of a network element in a communications
network comprising:
representing the communications network as a hierarchy of geographical areas, where an area at a higher
level of the hierarchy of geographical areas includes a plurality of areas at a lower level of the hierarchy of
geographical areas;
detecting ~~the~~ a failure of one or more network elements;
sending an alarm to the higher level in the geographical hierarchy summarizing the failure of the one or
more network elements; and

Page 3/7

Attorney Docket Number: FSP0054   Client Reference Number: AWS 761.US
Title: INTELLIGENT PRESENTATION NETWORK MANAGEMENT SYSTEM
Application Number: 09/511,168

in response to the alarm, identifying and locating failed network elements at a ~~particular~~ lower level of the geographical hierarchy.

16. (Currently Amended) The method of claim 15 In which ~~the representation of the communications network as the hierarchy of geographical areas~~ representing the communications network as a hierarchy of geographical areas includes representing the communications network as a hierarchical arrangement of geographical maps where a map at the higher level of the hierarchy of geographical areas includes a plurality of maps from the lower level of the hierarchy of geographical areas.

17. (Currently Amended) The method of claim ~~16~~ 15 in which the sending of the alarm to the higher level in the geographical hierarchy summarizing network element failures includes defining an alarm trigger that is responsive to the network element failures.

18. (Currently Amended) A method for determining the failure of a network element in a communications network comprising:
monitoring a geographical map which summarizes the status of a plurality of network elements in the communications network;
on ~~the~~ a map display, receiving an alarm representing the failure of network elements; and
in response to the alarm, narrowing the scale of the map to geographically locate failed network elements.

19. (Currently Amended) A system for presenting a communications network
comprising:
~~a plurality of network elements having geographic locations;~~
a database including ~~the~~ geographical locations of ~~the~~ network elements;
an application ~~connected~~ coupled to said database to ~~organize~~ represent the communications network ~~into~~ using a hierarchical arrangement of geographic areas, where each network element is located at a lower level in the hierarchy of geographical areas, said application summarizing the representation of the plurality of network elements at a higher level in the hierarchy of geographical areas;
a display having an input connected to said application to present a modifiable display of network elements as represented in multiple levels in the hierarchy of geographical areas; and
a supervisor interface connected to said application, said supervisor interface providing commands to said application to modify said display.

20. (Original) The system of claim 19 wherein the communications network is a
fixed wireless system (FWS); and
in which the network elements are base stations and remote units.

Page 4/7

Attorney Docket Number: FSP0054   Client Reference Number: AWS 761.US
Title: INTELLIGENT PRESENTATION NETWORK MANAGEMENT SYSTEM
Application Number: 09/511,168

21. (Original) The system of claim 20 in which said base stations and remote

units have an operational and a non-operational status;

in which said database is updated on the status of each said base station and remote unit;

in which said application summarizes the status of said base stations and remote units at the higher

hierarchical level; and

in which said display presents said application summaries.